

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>155197.7 MG</b>	<b>FOR FURTHER ACTION</b> <small>see Form PCT/ISA/220 as well as, where applicable, item 5 below.</small>	
International application No. <b>PCT/IL2004/001005</b>	International filing date (day/month/year) <b>03/11/2004</b>	(Earliest) Priority Date (day/month/year) <b>03/11/2003</b>
Applicant  <b>YISSUM RESEARCH DEVELOPMENT COMPANY OF THE...</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☒ Certain claims were found unsearchable (See Box II).

3. ☒ Unity of invention is lacking (see Box III).

**4. With regard to the title,**

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

**METHOD FOR SELECTING CATIONIC OR ANIONIC LIPOSOMES FOR TREATMENT OF A MUCOSA MEMBRANE, AND KIT COMPRISING THE SAME**

*ing*

**5. With regard to the abstract,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. With regard to the drawings,**

a. the figure of the drawings to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☒ none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IL2004/001005

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K9/127

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, EMBASE, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 287 198 A (BOARD OF REGENTS THE UNIVERSITY OF TEXAS SYSTEM) 19 October 1988 (1988-10-19) page 3, line 26 - line 35 page 7, line 32 - line 38	1-61
X	CA 2 451 846 A1 (CHUGAI SEIYAKU KABUSHIKI KAISHA; MAYUMI, TADANORI; SUGIYAMA, HARUO) 9 January 2003 (2003-01-09) page 7, line 12 - line 17 page 7, line 27 - page 8, line 4	1-61
X	WO 93/14744 A1 (CHIRON CORPORATION) 5 August 1993 (1993-08-05) page 6, line 3 - line 19 page 9, line 19 - line 21 page 11, line 11 - line 25 page 12, line 13 - line 26	1-61
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

1 February 2005

Date of mailing of the international search report

22.04.2005

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IL2004/001005

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JUBEH TAREQ ET AL: "The effect of liposomal charge density, dimensions, incubation time and tissue inflammation on the mucoadhesion properties of cationic liposomes in the rat colon" AAPS PHARM SCI, vol. 4, no. 4, 2002, page ABSTRACT R6152, XP002315936 ISSN: 1522-1059 abstract	1-61
A	BLAU SIGAL ET AL: "Drug targeting by surface cationization" CRITICAL REVIEWS IN THERAPEUTIC DRUG CARRIER SYSTEMS, vol. 17, no. 5, 2000, pages 425-465, XP009042815 ISSN: 0743-4863 cited in the application the whole document	1-61
A	YASUI KIYOTADA ET AL: "Positively charged liposomes containing tumor necrosis factor in solid tumors" BIOLOGICAL AND PHARMACEUTICAL BULLETIN, vol. 23, no. 3, March 2000 (2000-03), pages 318-322, XP001205127 ISSN: 0918-6158 the whole document	1-61
A	RENGEL RUZICA GALOVIC ET AL: "High efficiency entrapment of superoxide dismutase into mucoadhesive chitosan-coated liposomes" EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES, vol. 15, no. 5, June 2002 (2002-06), pages 441-448, XP002315937 ISSN: 0928-0987 the whole document	1-61

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IL2004/001005

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1-16, 29-41  
because they relate to subject matter not required to be searched by this Authority, namely:  
Although claims 1-16 and 29-41 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
1-61 in part

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-61 in part

Method for prevention of a disease of a mucosa membrane 'GI mucosa! by use of positively charged (cationic) liposomes; use of said liposomes for the preparation of a medicament; medicament comprising said liposomes.

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2. claims: 1-61 in part

Method for treatment (elimination) of a disease of a mucosa membrane 'GI mucosa! by use of negatively charged (anionic) liposomes; use of said liposomes for the preparation of a medicament; medicament comprising said liposomes.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IL2004/001005

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0287198	A	19-10-1988	US 4918063 A	17-04-1990
			AT 74758 T	15-05-1992
			CA 1310909 C	01-12-1992
			DE 3870016 D1	21-05-1992
			EP 0287198 A2	19-10-1988
			ES 2038285 T3	16-07-1993
			GR 3004396 T3	31-03-1993
			JP 2820688 B2	05-11-1998
			JP 63301824 A	08-12-1988
			US 5043329 A	27-08-1991
			US 4950656 A	21-08-1990
			US 5032585 A	16-07-1991
			US 5260284 A	09-11-1993
CA 2451846	A1	09-01-2003	CN 1520311 A	11-08-2004
			EP 1410804 A1	21-04-2004
			WO 03002142 A1	09-01-2003
WO 9314744	A1	05-08-1993	AU 3614493 A	01-09-1993
			US 2003147898 A1	07-08-2003
			US 6299884 B1	09-10-2001
			US 6451325 B1	17-09-2002